

## PRINTING with FILTERS

Variable contrast photo papers have two separate layers of emulsion on them. One layer is sensitive to yellow light while the other is sensitive to red light. The Variable Contrast Filters that we have, made by Ilford, are various combinations of red and yellow pigment. Filter #0 is mostly yellow. Filter #5 is mostly red. Filter #2 is a mix and is the equivalent of 'normal contrast'. This is the typical starting filter when printing.

These filters only change the density of the shadow areas of a print. It is important to first set the exposure time by getting the right density in the highlights using test strips. Once the right exposure time is determined, then the filters are employed to change the density of the shadow areas.

Filters from #0 through #3½ all have the same optical density, meaning they will not change the density of the highlights, only the shadow of a print. Filters #4, #4½ and #5 all have the same density but are all exactly one stop more dense than the other group. If you move from any one of the lower filters and use one of these filters, you will have to open the *f*/stop of your lens one stop, or double the exposure time, to compensate for the change in density.

Procedure:

Make a Test Strip with a #2 Filter

include the brightest highlights and darkest shadows  
step from 30 seconds down to 5 seconds

Find the Time Slice with the best highlight density  
the brightest whites should be bright, but not paper white  
you can choose times between the time slices, if necessary

This is the Developing Time

Examine the Shadow end of the selected Time Slice  
change the Filter to adjust the shadow density

If the Shadows are too thin, increase the Filter number (move up to a #3)  
If the Shadows are too dense, decrease the Filter number (move down to a #1)  
you can refine this choice using half-step filters, eg. #1½, #2½, #3½  
you will rarely go above #3½ or below #1